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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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293	7590	09/21/2005	EXAMINER	
Ralph A. Dowell of DOWELL & DOWELL P.C. 2111 Eisenhower Ave. Suite 406 Alexandria, VA 22314			DUONG, DUC T	
			ART UNIT	PAPER NUMBER
			2663	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/976,206

Applicant(s)

PARRUCK ET AL.

Examiner

Duc T. Duong

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45-59 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 45-50, 52-56, 58 and 59 is/are rejected.
- 7) ☒ Claim(s) 51 and 57 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/12/01</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 58 and 59 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 58 and 59, each of these claims defines both a method and an apparatus. Each claim as a whole is neither a definition of a method nor of an apparatus but is instead a hybrid of the two; it, therefore, does not define the invention in the manner contemplated by the second sentence of 35 U.S.C. Sec. 112 (see *In re Oakley*, 1935 C.D. 198, 454 O.G. 536, 73 F.2d 934, 24 USPQ 75).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 45-49, 52-55, 58 and 59 are rejected under 35 U.S.C. 102(b) as being anticipated by Diaz et al (US Patent 5,526,344).

Regarding to claim 45, Diaz discloses a method involving a switch fabric 10 (fig. 1), a first line card 200, and a second line card 202, comprising an ingress device 206 and an egress device 204, the ingress device 206 of the first line card 200 being

Art Unit: 2663

coupled to the egress device 204 of the first line card 200 via a first serial bus (fig. 8a col. 21 lines 20-27); and a second line card 202 comprising an ingress device 210 and an egress device 208, the ingress device 210 of the second line card 202 being coupled to the egress device 208 of the second line card 202 via a second serial bus (fig. 8a col. 21 lines 20-27), the egress device 208 of the second line card 202 detecting an amount of available memory 250 reach a low level (fig. 8a col. 20 lines 65-67 and col. 21 lines 1-15; noted if the egress buffer 250 has no resources available (low level), the egress device 208 will send a back-pressure signal 208 to the ingress device 210); in response sending a back-pressuring signal 208 to the ingress device 206 of the first line card 200 (fig. 8a col. 21 lines 36-46), the back-pressuring signal 208 passing from the egress device 208 of the second line card 202 to the ingress device 210 of the second line card 202 via the second serial bus (fig. 8a col. 21 lines 60-66), the back-pressuring signal 208 then passing from the ingress device 210 of the second line card 202 to the egress device 204 of the first line card 200 in the form of a status switch cell 214 passed from the ingress device 210 of the second line card 202 to the egress device 204 of the first line card 200 through the switch fabric 10 (fig. 8a col. 22 lines 8-10; noted the switch fabric 10 is implicitly shown in the figure), the back-pressuring signal 208 then passing from the egress device 204 of the first line card 200 to the ingress device 206 of the first line card 200 via the first serial bus (fig. 8a col. 22 lines 31-36).

Regarding to claim 46, Diaz discloses the payload memory 250 is coupled to the egress device 208 of the second line card 202 (fig. 7 col. 20 lines 45-47).

Art Unit: 2663

Regarding to claim 47, Diaz discloses the bus on the first 200 and second 202 line cards is a serial bus 13 (fig. 1 col. 4 lines 1-10).

Regarding to claims 48 and 54, Diaz discloses a flow of network information passes from the ingress device 206 of the first line card 200, through the switch fabric 10, and to the egress device 208 of the second line card 202, and wherein the ingress device 206 of the first line card 200 receives the back-pressuring signal 208 and in response thereto slows the flow of network information (fig. 8a col. 22 lines 41-47).

Regarding to claims 49 and 55, Diaz discloses the egress device 208 of the second line card 202 (fig. 8a) maintains a free buffer queue 250 (fig. 7 col. 20 lines 45-47), the free buffer queue 250 having a size, the egress device 208 of the second line card 202 sending the back-pressuring signal 208 via the second serial bus if the egress device 208 of the second line card 202 determines that the size of the free buffer queue has reached a low level (fig. 8a col. 20 lines 65-67 and col. 21 lines 1-15; noted if the egress buffer 250 has no resources available (low level), the egress device 208 will send a back-pressure signal 208 to the ingress device 210).

Regarding to claim 52, Diaz discloses the ingress device of the first line card 200 is a multi-service segmentation and reassembly device (fig. 1 col. 3 lines 32-48), the multi-service segmentation and reassembly device receiving both flows of packets and flows of cells (col. 5 lines 16-29).

Regarding to claim 53, Diaz discloses a system, comprising a switch fabric 10 (fig. 1), a first line card 200 comprising an ingress device 206 and an egress device 204, the ingress device 206 of the first line card 200 being coupled to the egress device 204

Art Unit: 2663

of the first line card 200 via a first serial bus (fig. 8a col. 21 lines 20-27); and a second line card 202 comprising an ingress device 210 and an egress device 208, the ingress device 210 of the second line card 202 being coupled to the egress device 208 of the second line card 202 via a second serial bus (fig. 8a col. 21 lines 20-27), the egress device 208 of the second line card 202 back-pressuring the ingress device 206 of the first line card 200 by sending a back-pressuring signal 208 to the ingress device 206 of the first line card 200 (fig. 8a col. 21 lines 36-46), the back-pressuring signal 208 passing from the egress device 208 of the second line card 202 to the ingress device 210 of the second line card 202 via the second serial bus (fig. 8a col. 21 lines 60-66), the back-pressuring signal 208 then passing from the ingress device 210 of the second line card 202 to the egress device 204 of the first line card 200 in the form of a status switch cell 214 passed from the ingress device 210 of the second line card 202 to the egress device 204 of the first line card 200 through the switch fabric 10 (fig. 8a col. 22 lines 8-10; noted the switch fabric 10 is implicitly shown in the figure), the back-pressuring signal 208 then passing from the egress device 204 of the first line card 200 to the ingress device 206 of the first line card 200 via the first serial bus (fig. 8a col. 22 lines 31-36).

Regarding to claim 58, Diaz discloses a multi-service segmentation and reassembly (MS-SAR) device 202 that in an egress mode 208 detects a back-pressuring situation and in response thereto outputs a back-pressuring signal 213 via a serial bus interface (fig. 8a col. 21 lines 60-66), the MS-SAR device in an ingress mode

Art Unit: 2663

210 receives a back-pressuring signal 213 via a serial bus interface and in response thereto outputs a status switch cell 214 (fig. 8a col. 22 lines 8-10).

Regarding to claim 59, Diaz discloses a multi-service segmentation and reassembly (MS-SAR) device 200 that in an egress mode 204 receives a status switch cell 214 and in response thereto outputs back-pressuring signal 215 via a serial bus interface (fig. 8a col. 22 lines 31-36), the MS-SAR device in an ingress mode 206 receives a back-pressuring signal 215 via a serial bus interface and in response thereto slows a flow of network information passing out of the MS-SAR device (fig. 8a col. 22 lines 41-47).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 50 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diaz.

Regarding to claims 50 and 56, Diaz discloses all the limitations with respect to claim 53, except for the egress devices and ingress devices of the first and second line cards are of first integrated circuit. However, to arrange the ingress and egress devices of the line cards as integrated circuit would have been obvious to a person of ordinary skill in the art since such arrangement is well known and can be easily implement using hardware.

Art Unit: 2663

Allowable Subject Matter

7. Claims 51 and 57 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Duong whose telephone number is 571-272-3122. The examiner can normally be reached on M-F (9:00 AM-5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DD
DD


RICKY NGO
PRIMARY EXAMINER
9/14/05